DRAINAGE INFORMATION SHEET

PROJECT TITLE: Water Systems Central Control Landscape ZONE ATLAS/DRAINAGE FILE # D-18-102

LEGAL DESCRIPTION: North Albuquerque Acres, Tract 'A', Block 4, Lots 11 thru

CITY ADDRESS: 5500 Pino NE

ENGINEERING FIRM: Leedshill-Herkenhoff CONTACT: Bobbie Miller

ADDRESS: 500 Cooper NE PHONE: 247-0294

OWNER: City of Albuquerque CONTACT: Basker Vedamanikam

ADDRESS: P.O. Box 1293 PHONE: 768-2654

ARCHITECT: Morrow and Co., Landscape Architects CONTACT: Elizabeth Fish

ADDRESS: 210 La Veta NE PHONE: 268-2266

SURVEYOR: City of Albuquerque CONTACT: Jan Fiala

ADDRESS: P.O. Box 1293 PHONE: 764-1620

CONTRACTOR: Lee Landscapes CONTACT: Rick Brown

ADDRESS: 5800 Signal NE PHONE: 822-8722

PRE-DESIGN MEETING:

X YES

___ NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED JUL 30 1987 HYDROLOGY SECTION

DRB NO. --

EPC NO. --

PROJECT NO. 3097

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAIN PLAN

X GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SECTOR PLAN APPROVAL

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

X GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY).

DATE SUBMITTED: 7/30/87

BY: Elizabeth Fish

REV. 10/85

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

August 11, 1987

Clinton Dodge
Leedshill-Herkenhoff
500 Copper, NE
Albuquerque, New Mexico 87102

RE: GRADING/PAVING PLAN FOR WATER SYSTEMS CENTRAL CONTROL LANDSCAPE (D-18/D2) ENGINEER'S STAMP DATED 7/28/87

Dear Mr. Dodge:

Based on the information provided on your submittal of July 30, 1987, the above referenced plan is approved for Grading/Paving.

Upon completion of this grading, please contact Rick Duran at 764-1699 to request an inspection.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

ATTN: BECKIE

DRAINAGE INFORMATION SHEET

PROJECT TITLE: SALT/SAND STORAGE FACILITY ZONE ATLAS/DRNG. FILE #: D-18/D2

LEGAL DESCRIPTION: PINO YARDS - CITY OF ALBUQUERQUE

CITY ADDRESS: _____

ENGINEERING FIRM: CITY OF ALBUQUERQUE CONTACT: GARY TIBBETTS

ADDRESS: _____ PHONE: 768-2775

OWNER: CITY OF ALBUQUERQUE CONTACT: _____

ADDRESS: _____ PHONE: _____

ARCHITECT: KEN HOVEY CONTACT: KEN HOVEY

ADDRESS: 335 JEFFERSON NE SUITE B ALBQ. NM 87108 PHONE: 255-9400

SURVEYOR: CITY OF ALBUQUERQUE CONTACT: DANNY MONTOYA

ADDRESS: _____ PHONE: 764-1612

CONTRACTOR: GEARCON CONSTRUCTORS CONTACT: ART LOGAN CONDON

ADDRESS: P.O. BOX 14748 ALBQ, NM 87191 PHONE: 265-8461

PRE-DESIGN MEETING:

X YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____

EPC NO. _____

PROJ. NO. #3708

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

X GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 4/19/89

BY: GARY W. TIBBETTS, P.E.

Drainage Improvements at Pino Yards - Phase I

SUBMITTED TO:

Resource Management Division
City of Albuquerque
Albuquerque, New Mexico

Resource Technology, Inc.
ENGINEERS & ENVIRONMENTAL SCIENTISTS
2129 OSUNA NE – SUITE 2 A, ALBUQUERQUE, NEW MEXICO 87113
TELEPHONE – (505) 345 – 3115

R.T.I. PROJECT NO. 89 - 100

February 1990

Resource Technology, Inc.

2129 OSUNA ROAD NE, SUITE 2A
ALBUQUERQUE, NEW MEXICO 87113
(505) 345-3115

February 20, 1990

Mr. Mike Minturn
Operations Officer
Resource Management Division
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Dear Mike:

This letter report documents the completion of Phase I of our study and design of drainage improvements at the Pino Yards oil contamination site. In accordance with Section A-1 of Exhibit 1 of our agreement we have completed the following items:

A. We have visited the Pino Yards on five occasions, met with Mr. Max Sanchez, Mr. Richard Gonzales and yourself, and collected background data on the facilities and operations. In addition, we have met with Bridgers and Paxton staff at the site and at their offices to determine future use of the Vehicle Maintenance Shop Building (Attachment 1). We also discussed the future use of Lot No. 5.

B. Under subcontract, ASI developed a sampling plan (Attachment 2) to indicate sampling locations and parameters for analysis. The sampling plan was reviewed and approved by the City prior to sampling.

C. A total of 13 samples from 11 sample locations were collected on July 19, 1989. The samples were analyzed by Assagai Analytical Labs. The analytical results were interpreted in a report dated August 1989 (Attachment 3).

An effort to collect additional samples from several points in the arroyo northwest of the facility was attempted in October 1989. It was determined at the time that the samples to be taken in this location would have limited utility since there was a significant amount of asphalt debris in the ditch. The presence of the asphalt was expected to have an appreciable influence on the analytical results for total petroleum hydrocarbons. Therefore, no samples were taken. One additional sample was taken approximately 100 yards up-stream from the Pino Yards and was intended to be representative of background concentrations in that immediate area. This total

petroleum hydrocarbon level was below the detection limit of the analytical instruments. A copy of the laboratory results for this particular sample is included at the end of Attachment 3.

Another sample was intended to be taken at a location that was previously sampled but at a greater depth. This sample was not obtainable since the location in which asphalt had been previously removed from the parking area had been repaired and replaced with fresh asphalt. City crews were unavailable to remove the newly placed asphalt at the time the second sample was to be taken.

D. Sludge deposits were sampled and analyzed by the City and no hazardous compounds were found. Also the City conducted a smoke test of the sanitary sewer and interior drain systems in the Vehicle Maintenance Shop Building. This test determined that the floor drains in the Vehicle Maintenance Shop Building do not contribute to the existing oil/water separator at the northwest corner of Pino Yards. These interior drains are directly connected to the sanitary sewer system which could potentially create problems in the sanitary sewer system, evaluation of which is beyond the scope of the present study. However, it should not be ignored because under City regulations pre-treatment may be required.

E. A drainage study summarized in Attachment 4, assessing run-off rates and volumes was prepared to evaluate the impact on South Domingo Baca Arroyo. The corresponding drainage areas are shown on Attachment 5.

This effort completes Phase I of our study. Ten copies of our results are submitted herewith. Please call if you have any questions or need further information.

Sincerely,

Elvidio V. Diniz, P.E.
President

EVD/rs

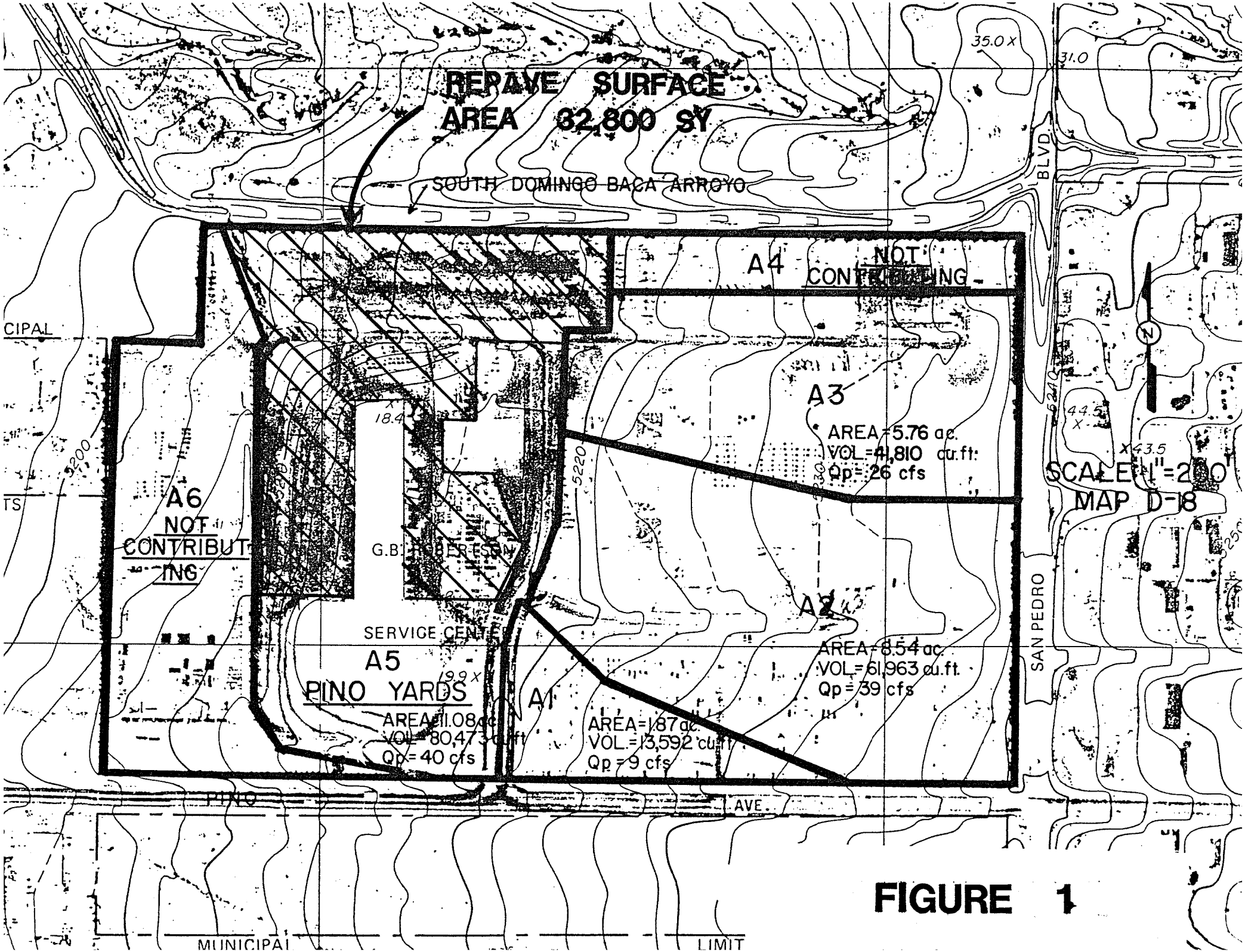

REPAVE SURFACE
AREA 32,800 SY
SOUTH DOMINGO BACA ARROYO
A4 NOT CONTRIBUTING
A3
AREA=5.76 ac.
VOL=41,810 cu.ft.
Qp=26 cfs
A6
NOT
CONTRIBUTING
A5
PINO YARDS
AREA=11.08ac.
VOL=80,473 cu.ft.
Qp=40 cfs
A2
AREA=8.54 ac.
VOL=61,963 cu.ft.
Qp=39 cfs
A1
AREA=1.87ac.
VOL=13,592 cu.ft.
Qp=9 cfs
SERVICE CENTER
G.B. ROBERTSON
SAN PEDRO
BLVD.
PINO
AVE.
MUNICIPAL
LIMIT
SCALE 1"=200'
MAP D-18

FIGURE 1

CHECKED _____ DATE _____

APPROVED _____ DATE _____

Holmes & Narver
ARCHITECTS - ENGINEERS
6501 Americas Parkway NE Suite 700
Albuquerque, NM 87110

JOB NO. 3145.08

SHEET 1 OF _____

TITLE Pino Yards Drainage Improvements

BY DJL DATE 3-16-98

1. Calculate Q_{100} for Pond Overflow Area: Re: Chapter 22, DPM

Given: Area = 0.30 Acres

Zone 3

Treatment = 100% D

$Q_p = 0.30 \times 5.02$ (Table A-9)

$= \underline{1.51 \text{ cfs}}$

$Vol = \frac{2.36}{12} \times 0.30 = \underline{0.06}$ acre-ft (Table A-8)

2. Compute Capacity of Single C Inlet

Given: Sump Condition

8" curb depth

Refer to attached Plate 22.3 D-5

At 0.67 Ft Depth of Flow $\rightarrow Q = \underline{12 \text{ cfs}}$

3. Calculate Concrete Channel Capacities at various flow depths

Refer to the attached calculation sheets

Depth (Ft)	Q (cfs)
0.25	4.99
0.75	69.73
1.25	177.99

Channel never gets this deep →

Holmes & Narver
ARCHITECTS - ENGINEERS
6501 Americas Parkway NE Suite 700
Albuquerque, NM 87110

4. Calculate capacity of 24" SD downstream of new connection

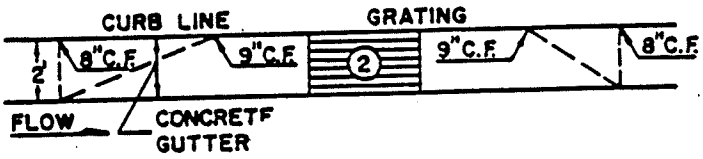
Capacity = 29.80 cfs

∴ Pipe will accept 29.80 - 19.90 (LH 1995 report)

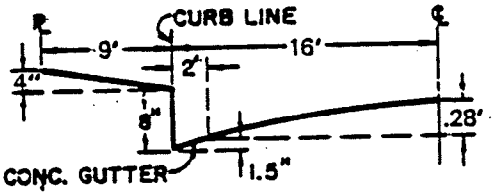
= 9.90 cfs additional

At this point flow will begin overflowing into the channel and rundown.

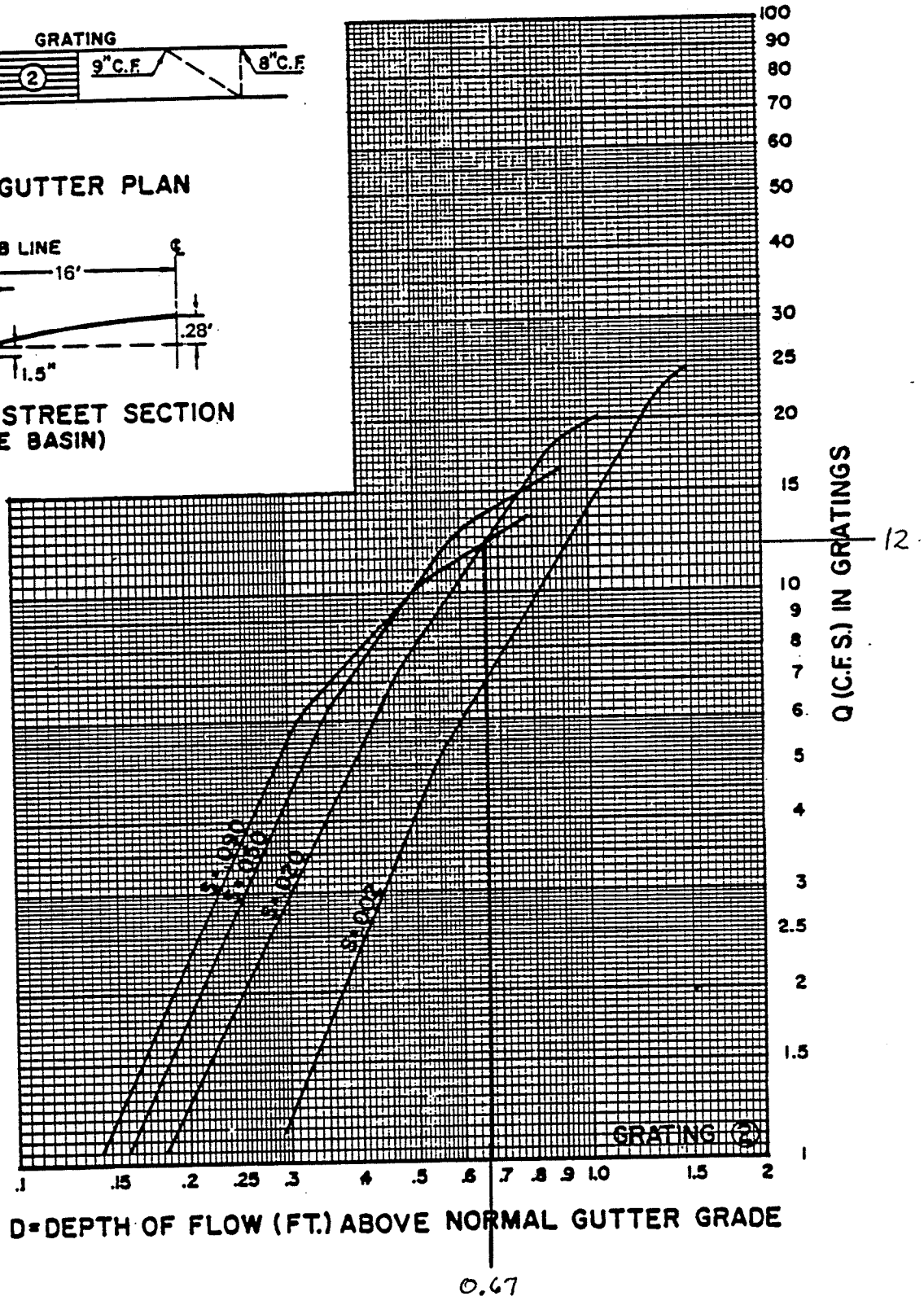
GRATING CAPACITIES FOR TYPE "A" , "C" and "D"



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION
(ABOVE BASIN)



PINO YARDS
WASTE TRANSFER STATION
DRAINAGE STUDY
IMPACT TO
EXISTING CONDITIONS

PREPARED FOR:

BROWN AND CALDWELL
345 EAST PALM LANE
SUITE 200
PHOENIX, ARIZONA 85004-1532

PREPARED BY:

BOHANNAN-HUSTON, INC.
COURTYARD I
7500 JEFFERSON ST., NE
ALBUQUERQUE, NM 87109

(505) 823-1000

AUGUST, 1989

JOB NO. 89220.10

STUDY OBJECTIVE: The objective of this study is to determine the impact of the project on downstream drainage structures and conveyance facilities. The project will discharge 100% of the site's generated flows to Pino Avenue. It is estimated that 16% of the site's runoff is currently being discharged to Pino Avenue. The immediate drainage facilities that will impacted by this project will be:

(1) Pino Avenue
(2) Roadway & Turnout Culverts in I-25 East Frontage Road
(3) Drainage Channels in I-25 East Frontage Road

See figure 3 for the approximate location and order of these structures.

SITE DATA: The proposed site for the Waste Transfer Station is located within the southwestern corner of the existing Pino yards located on Pino Avenue N.E. just East of the I-25 east frontage road.

SOILS: The soils found in the drainage basins that contribute runoff that impacts areas adjacent to the site are listed on figure 2 found in the appendix. These soils are listed as "B" hydrologic soils and runoff and produce light to moderate runoff.

METHODOLOGY: Runoff volumes were determined using the Soil Conservation Service (SCS) method. The peak rates of runoff were determined using the Rational Method. A 100 year recurrence frequency/6hr. duration storm and the corresponding 10 year storm were both used in the volume and flowrate calculations. The City of Albuquerque Development Process Manual (DPM) drainage section plates were also used in the Hydrology Design computations.

EXISTING CONDITIONS: The existing terrain of the general area falls from the base of the Sandia Mountains to the Rio Grande. The base of the mountains are approximately 6 miles to the east and the river is approximately 4 miles to the west. Offsite flows impacting the downstream structures begin approximately 1.3 miles to the east of the project at Wyoming Blvd. There is an existing storm drain system within Wyoming Blvd. that intercepts flows from the east. Runoff reaching Wyoming Blvd. from the east are not included in the flow calculations in this report. The total generated volumes & peak rates of runoff for the offsite Basins are shown in Table 1. The onsite flow volumes & rates are shown in Table 2.

DEVELOPED CONDITIONS: The only change in the runoff volumes listed for the existing conditions is an additional runoff volumes of 9,390 cu. ft. & 15,921 cu. ft. reaching the downstream structures. The peak flow rate will increase by 7 cfs and 10 cfs, an increase of 5.5% and 5.1 % respectively to the 10 yr & 100 yr. storms.

IMPACT TO DOWNSTREAM FACILITIES: The impacts should prove to be minor as the increase of flow rates is minimal. The increase in volumes of runoff is not a major consideration as there are no storage facilities immediately downstream and the increase in runoff volumes is light.

Current Conditions for the Existing Structures:
(Reference figures 3-6)

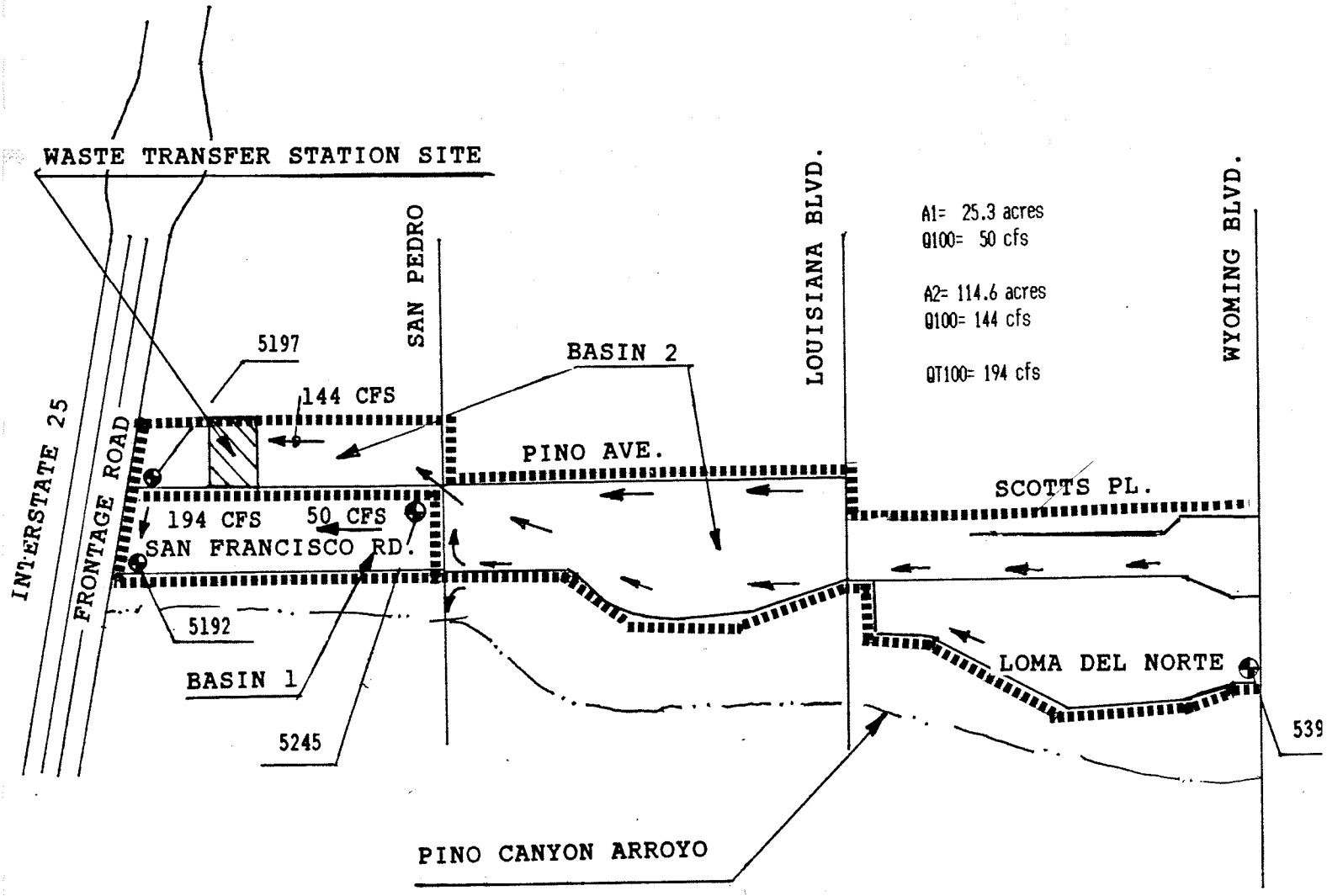
Structure/Conveyance	Flowrate (100 yr)	Capacity	Condition
1. Box Culvert/Grate Inlet	144	24	OVER
2. Drainage Swale	144	278	UNDER
3. 30" CMC	144	30	OVER
4. Drainage Swale	144	310	UNDER
5. Box Culvert/Grate Inlet	194	30	OVER
6. Drainage Swale	194	40	UNDER
7. 30" CMC	194	32	UNDER
8. Drainage Swale	194	135	UNDER

Even though some of the structures are already undersized the increase from the project would have little impact due to the high rates of runoff experienced in a storm of this magnitude.

RECOMMENDATIONS:

Structure/Conveyance	Recommended Action
1. Box Culvert/Grate Inlet	No change
2. Drainage Swale	No change
3. 30" CMC	Build additional 24" CMC
4. Drainage Swale	No change
5. Box Culvert/Grate Inlet	Build additional 24" CMC
6. Drainage Swale	Build 1' High Berm-East Side
7. 30" CMC	Build additional 24" CMC
8. Drainage Swale	No change

It is not the intent of this report to make recommendations to correct existing structure deficiencies but to recommend addition capacity structures/facilities that would offset any increase in flow rate to the downstream structures above those rates experienced in the existing condition.



Note: Qs listed here do not include flows generated East of Wyoming.

SCALE: 1"=1,000'

FIGURE 1

BOHANNAN-HUSTON INC.

PROJECT NAME WASTE TRANSFER STATION SITE SHEET _____ OF _____

PROJECT NO. _____ BY TG DATE _____

SUBJECT VICINITY & BASIN MAP CH'D _____ DATE _____

DISCUSSION OF METHOD

Since this is a relatively small site and the existing ruoff potential is high, the packed dirt, assumed to be essentially impervious, the rational formula was used to compare existing and developed peak flows. The time of concentration was computed using the Kirpich Formula and then the velocities compared to the less than 3 fps and greater than 6 fps limitation, and the 10 minute minimum established by the Development Process Manual (DPM). Volume of runoff was computed by obtaining a weighted CN based on surface cover and using Plate 22.2 C-4 of the DPM. The amount of rainfall for the 100 year frequency, 6 hour duration storm was 2.3 inches obtained from Plate 22.2 D-1 of the DPM. It was assumed that equal amounts will fall uniformly over the entire site.

Onsite Areas

To more accurately reflect the differences between the existing and developed conditions the site was divided into 5 subareas. Area A is currently packed dirt, asphalt, and some landscaped areas. Small amounts of water may enter from subarea D; however, the sidewalk is slightly raised keeping the water south of subarea A. Drainage will continue to go north into an asphalted private drive.

Subarea B is a small area of relatively undisturbed dirt, vehicles have not been parking on this dirt area. Water from the east is captured in a catch basin in an asphalted area. Water from Subarea D to the south would have to get over the sidewalk in order to enter subarea B. Subarea B currently drains north to the building. It will be necessary to grade the site to allow drainage away from the building into a small drainage trough along the east side of the building. Drainage from this area will go east, then north along the east side of the building then discharges into an asphalted area.

Subarea C is a small area consisting of marginal landscaping and sidewalk. Water from Subarea D cannot enter Subarea C because of a two foot high block wall which was built to prevent water from entering the building to the west. This building is flush to the ground and protection will have to be continued. This subarea drains north and south. On the north side it drains into a rock garden then to asphalt. On the south, it drains onto a sidewalk with an inverted crown, then to asphalt.

Subarea D is a large area consisting of packed dirt, sidewalks, and marginal landscaping near the buildings. The site drains east to west with the discaharge about equally divided between the northwest rock garden area and southwest down the inverted sidewalk due to the brick wall. There has been some localized ponding in the southwest corner; however, it appears to only be a few inches in depth with a diameter of about six feet.

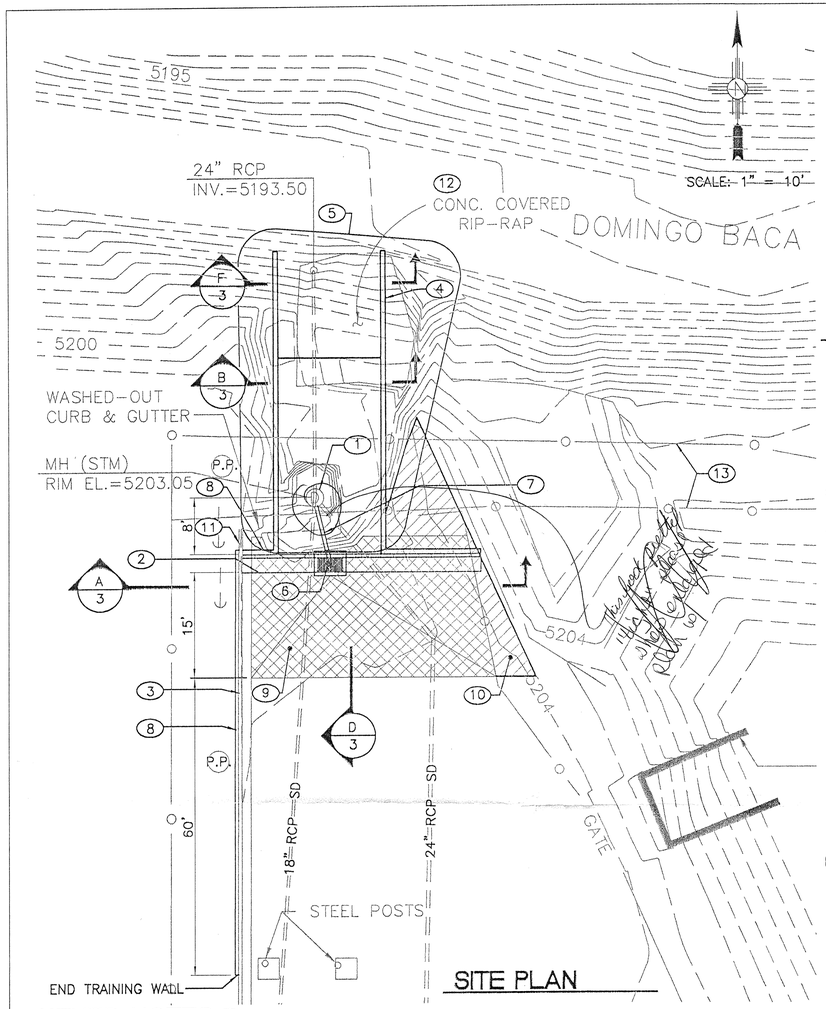
Subarea E is currently an asphalted parking area which drains south to an asphalted private drive. Water from subarea D is unlikely to enter E as the sidewalk is sightly raised above the surrounding area.

Offsite contributions

Other than the immediate site, the only other areas contriubting runoff, based on a site visit May 14, 1987 and orthophotomay D-18, are portions of the rooof area on the surrounding buildings. THese roof areas are addressed in the associated subarea calculations. Since no as-built plans were available and no cannel are on the lower roofs, the contributing areas were scaled from a site plan.

Discharge Location

All the water from the site currently travels west to a private asphalted roadway, then north to another asphalted roadway, west along this raod to the northwest corner of the Pino Yards. AT this point it travels a short distance northwest and discaharges into the Arroyo de Domingo BAca. From there the arroyo heads northwest then under Interstate 25 via four 8'x10'box culverts, south of the Paseo del Norte interchange.



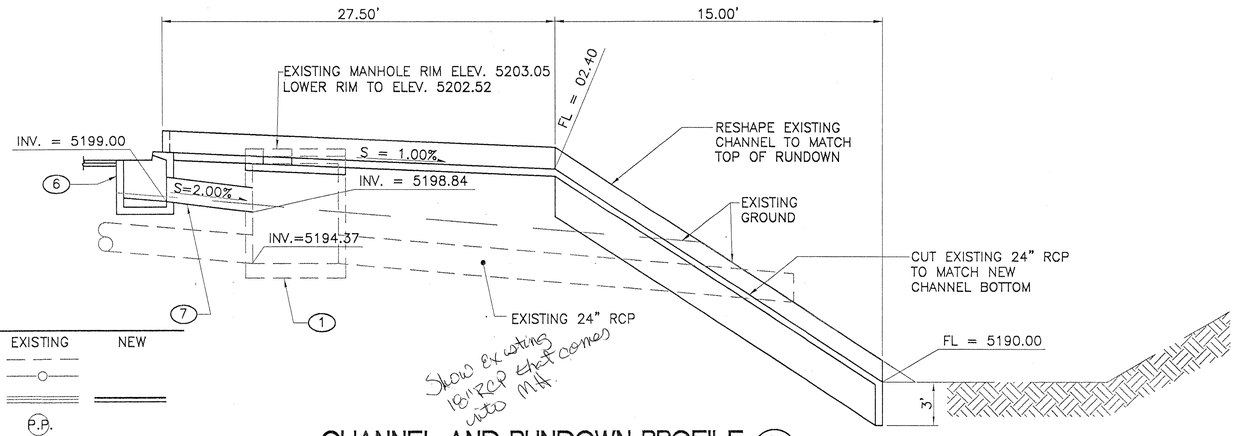
SITE PLAN

KEYED NOTES

1. EXISTING 6' DIA. MANHOLE
2. INSTALL NEW STANDARD CURB & GUTTER
3. EXISTING MEDIAN CURB & GUTTER
4. NEW CONCRETE CHANNEL AND RUNDOWN.
5. BACKFILL AND RESHAPE EXISTING CHANNEL TO LIMITS SHOWN.
6. INSTALL NEW SINGLE C INLET.
7. INSTALL 8 L.F. 24" R.C.P. CLASS III SLOPE = 2.0%.
8. TRAINING WALL.
9. REMOVE AND REPLACE EXISTING ASPHALT PAVEMENT. SEE E/3
10. REMOVE AND REPLACE EXISTING ASPHALT SLOPE PAVING. SEE C/3
11. REMOVE EXISTING COLLAPSED CURB & GUTTER AND ASPHALT PAVEMENT.
12. REMOVE EXISTING COLLAPSED CONCRETE COVERED RIPRAP.
13. REMOVE AND REINSTALL EXISTING CHAIN LINK FENCES AS SHOWN.

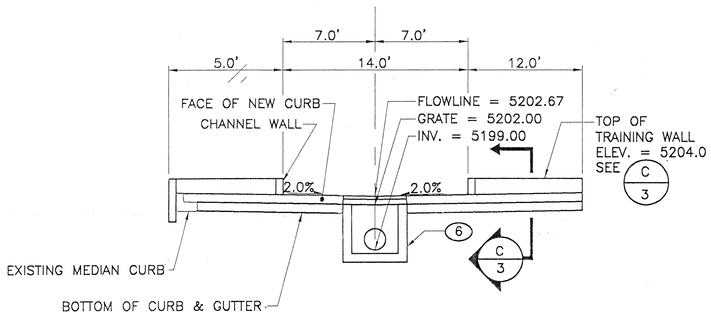
LEGEND

	EXISTING	NEW
CONTOUR		
FENCE		
CURB AND GUTTER		
POWER POLE	P.P.	
STORM DRAIN		
ASPHALT TO BE REMOVED		
SLOPE PAVING TO BE REMOVED		



CHANNEL AND RUNDOWN PROFILE

SCALE: NOT TO SCALE — D/3



CHANNEL SECTION

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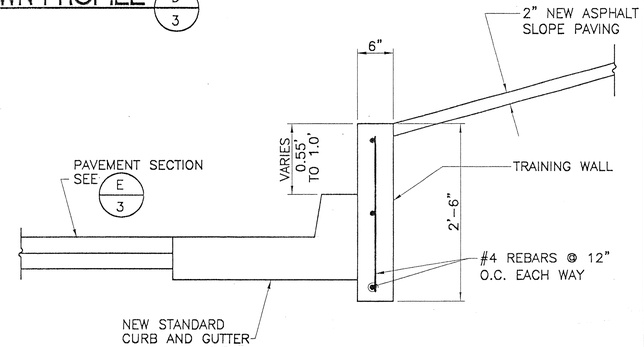
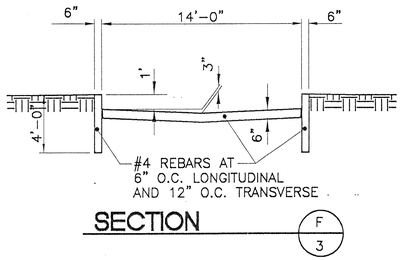


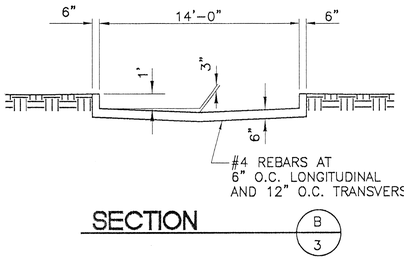
SECTION

SCALE: NOT TO SCALE — C/3



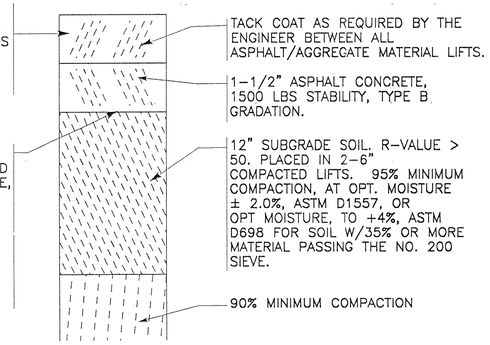
SECTION

F/3



SECTION

B/3



RESIDENTIAL PAVING SECTION

DETAIL

SCALE: NONE — E/3

AS BUILT INFORMATION

CONTRACTOR
WORK REPORTED BY: DATE:
INSPECTOR'S ACCEPTANCE BY: DATE:
FIELD VERIFICATION BY: DATE:
DRAWINGS CHECKED BY: DATE:
MICRO-FILM INFORMATION
RECORDED BY: DATE:
NO.

BENCH MARKS

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

REGISTERED PROFESSIONAL ENGINEER — STATE OF NEW MEXICO — No. 14658 — DAVID J. LARROW — 3-17-98

REVISIONS

NO.	DATE	REMARKS	BY	DATE
		DESIGN	R L BELL	MARCH 98
		DESIGNED BY:		
		DRAWN BY:	J L MOORE	MARCH 98
		CHECKED BY:	D J LARROW	MARCH 98

Holmes & Narver

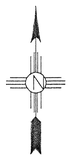
CITY OF ALBUQUERQUE
PARKS AND GENERAL SERVICES DEPARTMENT

TITLE: PINO YARDS DRAINAGE IMPROVEMENTS
SITE PLAN AND DETAILS

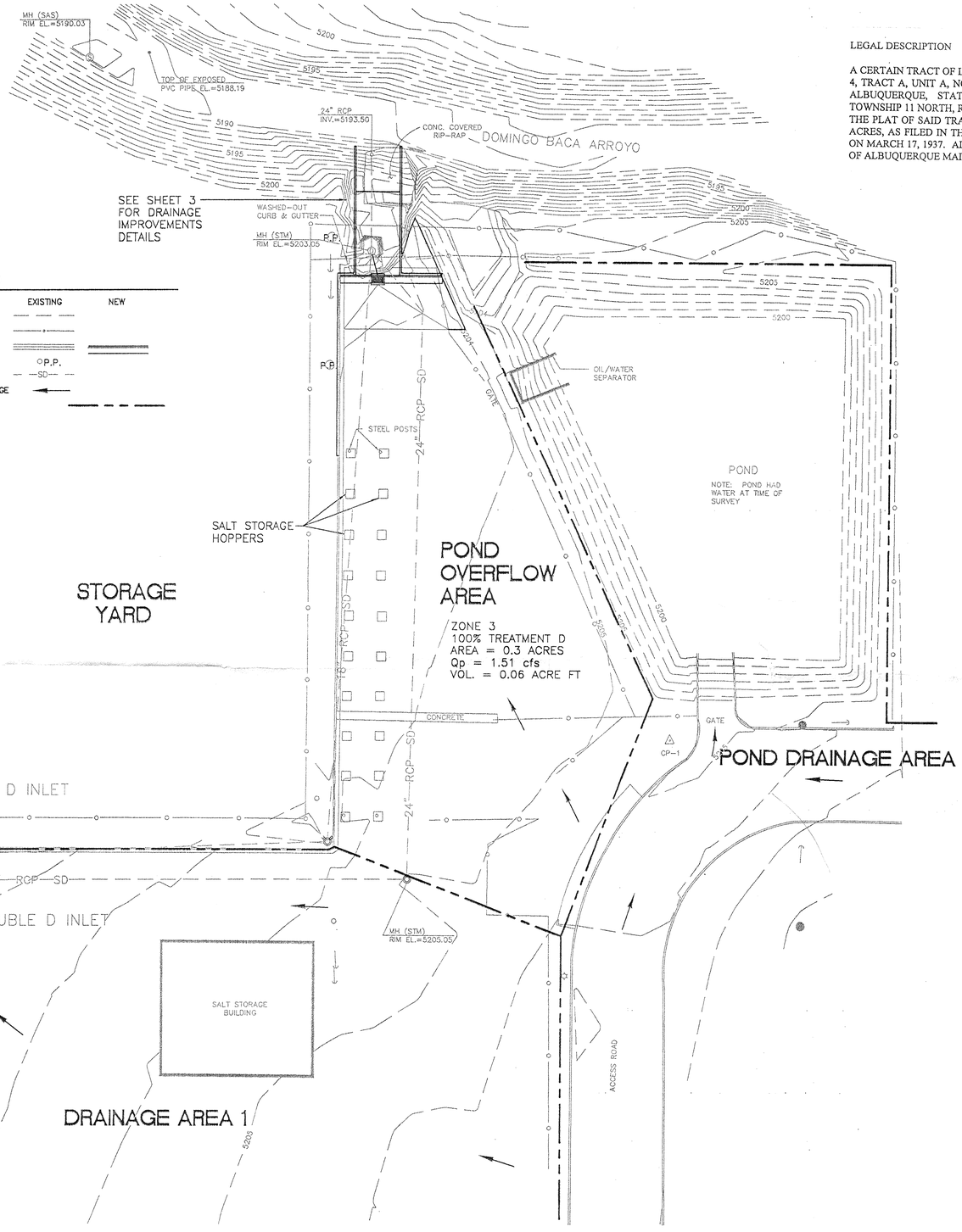
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 5588.08 | Zone Map No. D-18 | Sheet 3 Of

DWG: M:\CAD\314508\PLANS\PINOSP01.DWG
TIME: 3-16-98 9:49
USER: JOHNNY MOORE



SCALE: 1" = 20'

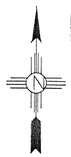


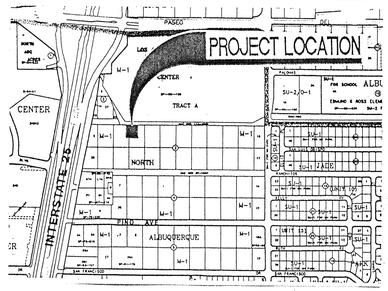
LEGEND

	EXISTING	NEW
CONTOUR		
FENCE		
CURB AND GUTTER		
POWER POLE	○P.P.	
STORM DRAIN LINE	—SD—	
DIRECTION OF DRAINAGE		
DRAINAGE BOUNDARY		

LEGAL DESCRIPTION

A CERTAIN TRACT OF LAND LOCATED WITHIN BLOCKS 3 AND 4, TRACT A, UNIT A, NORTH ALBUQUERQUE ACRES, CITY OF ALBUQUERQUE, STATE OF NEW MEXICO, SECTION 24, TOWNSHIP 11 NORTH, RANGE 3 EAST, N.M.P.M., AS SHOWN ON THE PLAT OF SAID TRACT A, UNIT A, NORTH ALBUQUERQUE ACRES, AS FILED IN THE RECORDS OF BERNALILLO COUNTY ON MARCH 17, 1937. ALSO KNOWN AS "PINO YARD", OR CITY OF ALBUQUERQUE MAINTENANCE YARD.





VICINITY MAP
MAP NO. D-18

GENERAL NOTES

NOTICE TO CONTRACTORS

1. ALL WORK DETAILED ON THESE DRAWINGS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION, AS AMENDED THROUGH UPDATE 6, HEREBY REFERRED TO AS THE SPECIFICATIONS. REFERENCES MADE TO STANDARD DRAWINGS IMPLY THAT SECTION OF THE SPECIFICATIONS WHICH INCLUDES MISCELLANEOUS STANDARD DETAILS.

2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.

3. THE CONTRACTOR SHALL MAINTAIN BARRICADES ON THE SOUTH SIDE OF CONSTRUCTION TO PREVENT VEHICLES FROM ENTERING INTO THE CONSTRUCTION AREA.

4. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT MARKINGS, CURB AND GUTTER, DRIVEPADS, HANDICAP RAMPS, AND SIDEWALKS DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE PER CITY OF ALBUQUERQUE STANDARDS AT HIS OWN EXPENSE.

5. DRAINAGE NOTES

EXISTING SITE CONDITIONS

THE EXISTING SITE IS AT THE PINO YARDS AND IS 100% DEVELOPED. THERE ARE THREE DRAINAGE AREAS IN THE VICINITY OF THE PROPOSED IMPROVEMENTS: THE DRAINAGE AREA ADJACENT TO THE SALT STORAGE BUILDING; THE EXISTING POND DRAINAGE AREA, AND THE POND OVERFLOW AREA UPSTREAM OF THE PROPOSED IMPROVEMENTS. EXISTING 18-INCH AND 24-INCH STORM DRAIN PIPE NOW DRAIN THE AREA ADJACENT TO THE SALT STORAGE BUILDING.

IN THE AUTUMN OF 1997, SEVERE THUNDERSTORM DRAINAGE CAUSED EXCESSIVE OVERFLOW FROM THE POND TO THE POND OVERFLOW AREA. THIS RESULTED IN SEVERE EROSION DAMAGE TO THE CONCRETE COVERED RIPRAP SLOPE UPSTREAM OF THE DOMINGO BACA ARROYO.

PROPOSED SITE DRAINAGE PLAN

IN ORDER TO PREVENT FUTURE DAMAGE TO THE POND OVERFLOW AREA, A TYPE-C SINGLE INLET WILL BE CONSTRUCTED AT THE NORTH SIDE OF THE PAVED AREA AND WILL DRAIN TO THE EXISTING 24-INCH STORM DRAIN MANHOLE AS SHOWN. IF THE FLOW OVERTOPS THE INLET AND CURB, IT WILL BE CONVEYED TO THE DOMINGO BACA ARROYO BY A CONCRETE CHANNEL AND RUNDOWN.

EROSION CONTROL PLAN

CONTRACTOR IS RESPONSIBLE FOR THE ABATEMENT OF SEDIMENT ONTO ADJOINING PUBLIC RIGHT-OF-WAY, PUBLIC AND/OR PRIVATE LAND DURING CONSTRUCTION AND FOR THE REMOVAL OF ANY SEDIMENT DEPOSITED ON ANY ADJOINING AREAS.

CONTRACTOR IS ALSO RESPONSIBLE FOR OBTAINING A "TOP SOIL DISTURBANCE PERMIT", PROTECTING ADJACENT PROPERTY FROM SEDIMENT (SEE ABOVE NOTE) AND REPAIRING ANY DAMAGE PROMPTLY.

AS BUILT INFORMATION
CONTRACTOR
WORK STARTED BY — DATE
INSPECTOR'S ACCEPTANCE BY — DATE
FIELD SURVEYED BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 4358
DAVID J. LARROW
3-17-98

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY: R L BELL — DATE: MARCH 98	
		DRAWN BY: J L MOORE — DATE: MARCH 98	
		CHECKED BY: D J LARROW — DATE: MARCH 98	

Holmes & Narver

CITY OF ALBUQUERQUE
PARKS AND GENERAL SERVICES DEPARTMENT

TITLE: PINO YARDS DRAINAGE IMPROVEMENTS
GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 5588.08 | Zone Map No. D-18 | Sheet 1 of 3

RECEIVED
MAR 23 1998
HYDROLOGY SECTION

DWG: M:\CAD\314508\PLANS\PINOGD01.DWG
TIME: 3-16-98 09:23
USER: JOHNNY MOORE

DRAINAGE SUMMARY
Q peak (cfs)

SUBAREA	EXISTING	PROPOSED
A	2.45	2.56
B	0.17	0.16
C	0.51	0.51
D	7.68	5.76
E	0.54	0.53
TOTAL	11.30 cfs	9.52 cfs

Notes

1. Upon leaving the drainage area, all flows discharge onto private asphalted roadways.
2. Storm water falling on Pino Yards discharges into the Arroyo de Domingo Baca then goes under Inberstate 25 via 4 - 8'x10' CBC's.

Notes

1. Construction/soil distrubance to be done in one phase.
2. Soil distrubed during construction shall be watered to control erosion and air-born particles.
3. SCS soil: Embudo-Tijeras Complex: Hydrologic Soil Group B.
4. Grading as per City Interim Std. Specs, 1985.
5. Soil densities: 80% Modified Procter density @ planted areas.
   90% Modified Proctor density @ paved areas.

STATE OF NEW MEXICO
BAKER H. MORROW
NO. 2
REGISTERED LANDSCAPE ARCHITECT

7.28.87

DISCHARGE PEAK
EXISTING 2.45 cfs
DEVELOPED 2.56 cfs

DISCHARGE PEAK
EXISTING 5.09 cfs
DEVELOPED 3.84 cfs

DISCHARGE PEAK
EXISTING 0.17 cfs
DEVELOPED 0.16 cfs

DISCHARGE PEAK
EXISTING 0.25 cfs
DEVELOPED 0.25 cfs

DISCHARGE PEAK
EXISTING 2.54 cfs
DEVELOPED 1.92 cfs

DISCHARGE PEAK
EXISTING 0.54 cfs
DEVELOPED 0.53 cfs

PARK MAINT. BLDG.
FFE = 5228.35

TRANSPORTATION BLDG.
CREATE AND/OR MAINTAIN POS. DRAINAGE AWAY FROM BLDG. THIS AREA.
CUT & FILL AS NEEDED AT ± 12" DROP IN GRADE @ EX'G FENCE TO CREATE A SMOOTH, EVEN FINISH GRADE
FFE = 5233.35

EX'G CATCH BASIN

BENCH MARK
"I" ON SIDEWALK
ELEV. = 5235.72

PARKS & REC. BLDG.
FFE = 5236.42

EX'G COOLANT STRUCTURE

TEMPORARY BLDG.
FFE = 5237.78

REFUSE BLDG.
FFE = 5225.37

CMU WALL

BASKETBALL COURT

HORSESHOE PITS

SHOWER BLDG.
FFE = 5232.58

GAZEBO
FFE = 5232.50

DECORATIVE FOUNTAIN
FFE = 27.71

FFE = 5226.35

FFE = 5228.38

WATER SYSTEMS BLDG.

FFE = 5233.38

BENCH MARK
"I" ON SIDEWALK
ELEV. = 5229.65

WATER SYSTEMS / STREET BLDG.

FFE = 5236.38

A

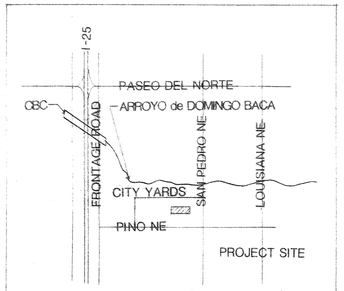
B

C

D

E

VICINITY MAP
ZONE ATLAS MAP NO. D-18



SCS BERNALILLO COUNTY SOIL SURVEY MAP, SHEET 11, 1977

LEGEND
- EXISTING SPOT ELEVATION
- 0.00 / 0.00 PROPOSED SPOT ELEVATION
- EXISTING GRADE
- PROPOSED GRADE
- E EX'G ELEC. RISER
- T EX'G TELEPH. RISER
- W EX'G WATER RISER
- G EX'G GAS RISER
- EX'G SIGN POST
- PAVED AREA (BALANCE OF SITE IS PLANTED AREA OR BLDG.)
- DRAINAGE AREA
- DRAINAGE SUB-AREA

LEGAL DESCRIPTION
T 11 N, R 3 E, SEC 24
NORTH ALBQ. ACRES
TRACT 'A'
M-1
BLOCK 4

1" = 20' scale 20 0 20 40

RECEIVED
JUL 30 1987
HYDROLOGY SECTION

DRAWN BY:
CHECKED BY:

MORROW & COMPANY, LTD.
LANDSCAPE ARCHITECTS
210 La Vota Drive NE
Albuquerque, New Mexico 87108
505 268-2266

WATER CENTRAL CONTROL
5501 PINO ROAD N.E.
GRADING PLAN \ HYDROLOGY PLAN JULY 1987

LANDSCAPING IMPROVEMENTS FOR
WATER SYSTEM FACILITY SITES
WATER SYSTEMS DIVISION
CITY OF ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO

SHEET 1 OF 1